

# PHENIX WEEKLY PLANNING

TECHNICAL  
SUPPORT  
NO. 1



12/08/2011  
Don Lynch



## This Week

- Continue RPC1 N commissioning
- RPC1 S Installation **Done**, Begin RPC1 S commissioning
- Continue MuTr station 3 North Clamp-on re-capacitors in MMN
- FVTX rack assembly **Done?**
- Continue design and procurement for RPC3 shielding
- Remove hanging platform **Done**
- Reconfigure scaffold for RPC1S survey **Done**
- Move VTX/FVTX West to 1008 **Done**
- Install VTX/FVTX West **Done**
- Move VTX/FVTX East to 1008 **Done**
- Survey RPC1S **Done**
- Survey and align CM and beampipe **Done**
- Survey VTX/FVTX West
- Install FVTX racks
- Install VTX/FVTX West cables and services
- BBC South installation **Done**
- MPC South troubleshooting
- Install VTX/FVTX East
- Survey VTX/FVTX East
- Install VTX/FVTX East cables and services
- Continue prep of EC for roll in



## Next Week

- Complete Survey VTX/FVTX East and overall
- Continue RPC1 N & S commissioning
- Complete MuTr station 3 North Clamp-on re-capacitors in MMN
- Complete VTX/FVTX cabling & fiber installation
- Install new MPC racks
- Remove all scaffolding from IR
- Remove manlift and plates from IR
- Move MuID collars to IR
- Move 12 ton rolling cart to AH winter home
- Roll in EC
- Prep EC for run (platforms, ladder, dumb waiter, electric, fiber, gas



- CM alignment stops
  - Reinstall BBC South
  - MPC S troubleshooting
  - Upgrade AH crane
  - RPC3 Shielding
  - RPC Hodoscope
  - Prep for EC roll in
    - EC prep
    - Remove manlifts and plates
    - Preposition MuID collars
  - reinstall MMS east vertical lampshade
  - CM alignment & BP Survey (Final after VTX/FVTX installed)
  - MPC electronics rack upgrade installation
  - Roll in EC
  - Prep IR for run
  - IR run prep, Pink/Blue/White sheets
  - New and upgraded full detector commissioning
  - Run 12 cooldown
- Design Done, Fabrication in Progress  
12/7  
12/8  
After 1/17/2012  
Large Blocks placed  
Rail extensions for garage in progress  
Mech Installation Done  
Cabling
- Done  
12/14  
12/14  
Done  
12/8  
12/14  
12/15  
12/16  
12/19-1/6/2012  
In progress to 1/16/2012  
1/17/2012



• FVTX/VTX Chiller leak/contamination improvements	Done
• FVTX west assembly and QA tests	Done
• FVTX west pre-survey	Done
• VTX pixel/strip pixel repairs	Done
• VTX west re-assembly & QA tests	Done
• FVTX east assembly and QA tests	Done
• FVTX west integration with VTX west	Done
• Move FVTX east to Chem lab	Done
• FVTX east pre-survey	Done
• VTX east reassembly and QA tests	Done
• FVTX east integration with VTX east	Done
• FVTX/VTX east half survey	Done
• FVTX/VTX west half survey	Done
• FVTX/VTX complete alignment survey in Chem. Lab	Done
• Install FVTX fibers from rack room thru AH/sill to CM	Done
• Final FVTX/VTX QA tests and thermocouple wiring	Done
• Move west FVTX+VTX half to 1008	Done
• Move east FVTX+VTX half to 1008	Done
• Install FVTX/VTX west detectors (mechanical)	Done
• FVTX racks ready	Done ?
• Survey FVTX/VTX west detectors (mechanical)	12/8
• Install FVTX racks on bridge	12/8
• FVTX/VTX west cable routing, plumbing, QA tests	12/9
• Install FVTX/VTX east detectors (mechanical)	12/9
• Survey FVTX/VTX east detectors (mechanical)	12/9
• FVTX/VTX east cable routing, plumbing, QA tests	12/13
• FVTX/VTX final electrical/fiber/plumbing/monitoring installation	12/16



## RPC Tasks

- Install and test RPC1 North including all cables and plumbing Done
- Build 1 new rack, upgrade existing RPC1 prototype rack and install on Bridge Done
- Move CM north to run position Done
- Install scaffolding in station 1 south Done
- Modify BBCS cable routing Done
- Install RPC1 S Done
- RPC3 HV Distribution modifications, gas distribution modifications, PS calibration HV and services testing Done
- Remove hanging platforms Done
- RPC1 north and south commissioning In progress
- Remove all scaffolding 12/12

TECHNICAL SUPPORT 2011



TECHNICAL SUPPORT ZONE

- Station 1 North Upgrade (remove, recapacitate, clean, reinstall) Done
- Station 2 North (north and south sides) and South (south side only) upgrade - remove dry air headers, modify headers, install terminator boards, reinstall modified headers Done
- MuTr North & South Station 3 Re-cap clamps**
- Install work platforms (north and south for capacitor clamp installation to lower octants of station 3) Done
- Install new capacitor clamps in lower octants (South Done North In Progress) 7/25-12/21
- Install new dry air manifolding to Cap clamp headers (South Done North In Progress) 11/21-12/21
- Remove work platform & steps from MMS Done
- Re-install MMS east vertical lampshade Done
- Remove work platforms from MMN 12/21



## Electronics Group Tasks

2011 Shutdown

- MPC electronics replacement
  - Build racks 12/9
  - Install & wire racks 12/16
  - Test 12/31
- RPC hodoscope installation
  - Run cables 12/31
  - Test 12/31
- RPC1 Wiring
  - Install cables Done
  - Test Done
- Run 12 restoration of detectors
  - EC rewire (power/cable/fiber) 12/16
  - CM restore magnet power, cooling 12/16
  - WC upgrades 12/16
  - Pink/White/Blue Sheets 1/6/12
- VTX restoration
  - Reinstall cables, fiber, cooling, monitoring 12/12
- FVTX installation and cabling
  - Racks: assemble, test, install on bridge 12/8
  - Fiber: install, terminate and connect 12/13
  - LV sensor and wedge: fabricate, install, terminate and connect 12/13
- Other ??? 1/17/2012



## Miscellaneous Gas & Cooling System Tasks

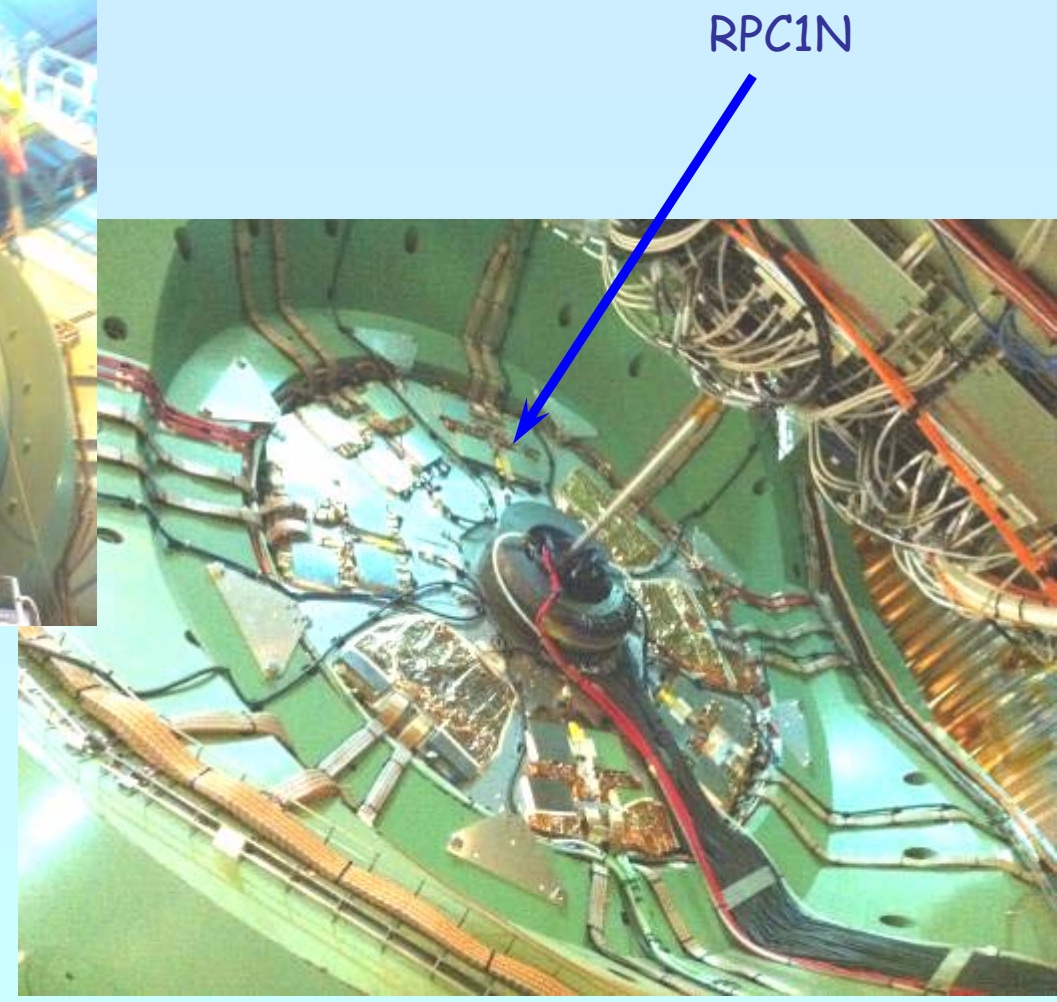
- |   |                                   |
|---|-----------------------------------|
| • Replace MuTr flowmeters (north and south)   | north done, south by - 12/31      |
| • Replace tygon lines (80 lines) from the cooling manifolds to the detector with 1/4" ID teflon tubing. | Lines ready for installation      |
| • Insulate whatever Big Wheel chiller lines in the IR that we can get to to reduce sweating in the IR.  | AH lines are done                 |
| • Build a system to clean the Novec during the run.   | In progress                       |
| • Pixel cooling upgrade for 10° C without impacting strip-pixel cooling.                                | Ready for installation            |
| • Replace all cooling RTD transmitters  | Parts here ready for installation |
| • Upgrade Mutr, MuID and DC/PC computers in GMH by 12/15  | Done                              |
| • RPC station 1 gas panels: (north and south)   | Done                              |
| • RPC Station 1 supply lines and exhaust (connecting to existing lines).                                | Done                              |
| • Plumbing new supply for R134A, incl. heat tape and insulation.  | Done                              |
| • MuID panel circulation. Class one div 2 fans.   | Design in progress?               |
| • Dry air for Mutr HV work. (north and south)   | South done, North in progress     |
| • Dry air filters to be replaced before run starts.   | Done                              |
| • Other   | ???                               |



TECHNICAL SUPPORT

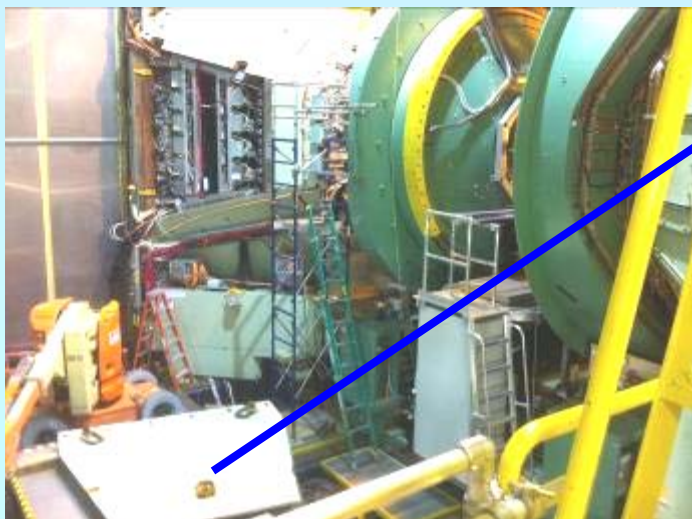


RPC1S



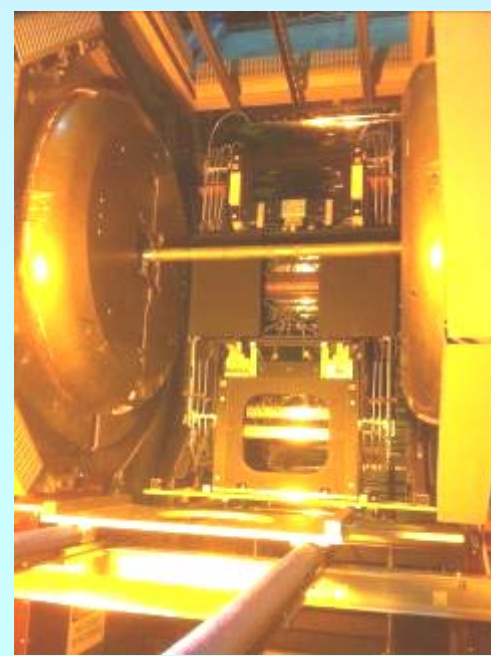
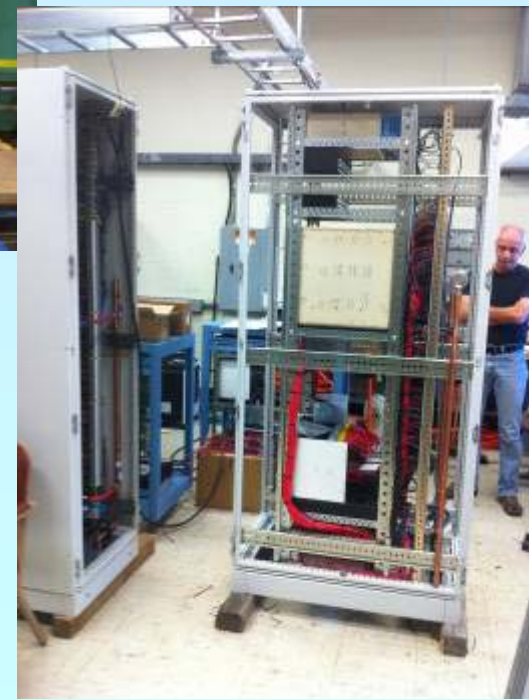
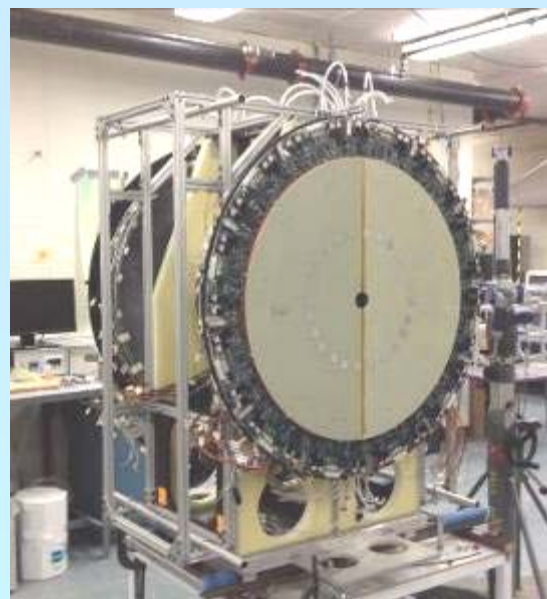
RPC1N







TECHNICAL SUPPORT



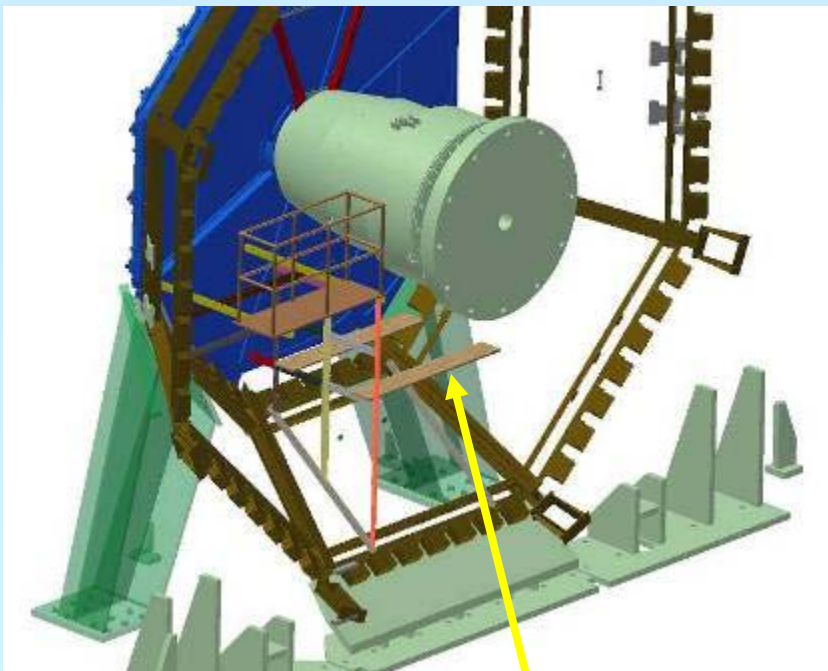


Gas Mixing House East  
Annex for R134A bottles  
close to GMH.



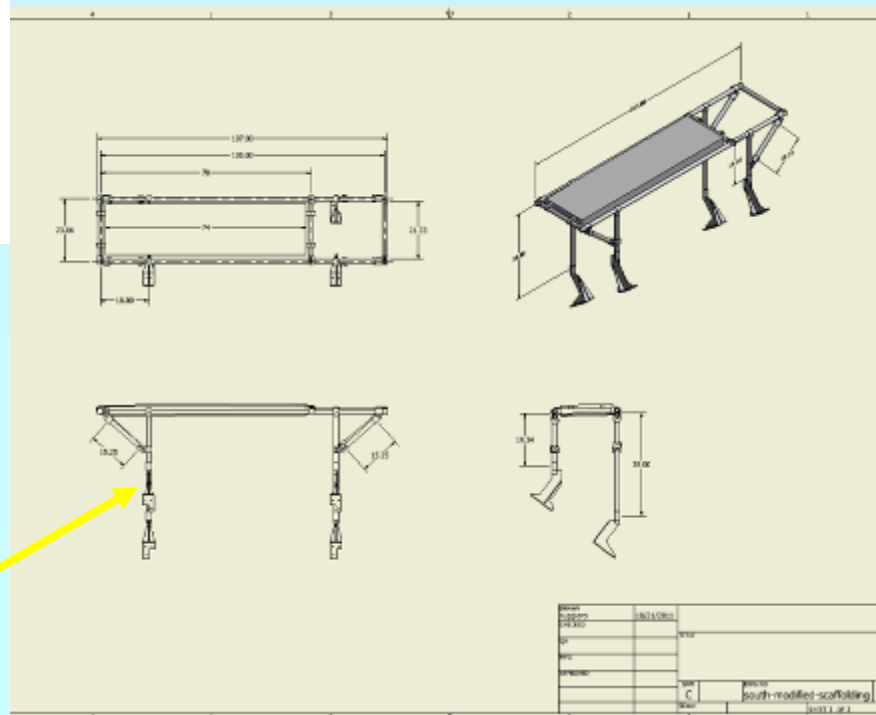


# Station 2/3 S/N Access



North Magnet Platform

South Magnet Platform  
Out and Done







MPC  
new  
electronics  
racks



# Infrastructure Issues

TECHNICAL SUPPORT ZONE

- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall, over door between control room and elect. ass'y room, southeast corner of IR and laser room.

- Flooding in AH/ Driveway heaving



- Electronics test/assembly room-to-parking lot door (does not open/close/lock properly - needs to be replaced)





From Ray Karol:

- Both north and south tunnels will be ODH1 at the start of run 12. Anyone needing access (e.g. RPC3's) will need a film badge, ODH1 web training, ODH practical training, and physicals up to date.

Per John Maraviglia of CAD: The practical training for ODH1 (which for most of us expires soon and will need to be retaken before run 12 cooldown in order to be able to access either the north or south tunnel and RPC3;'s) will be given in Snyder Hall, building 911 on one of the following days:

12/8/11 (tomorrow) at 11:15 AM  
12/9/11 (Friday) at 11:15 AM  
12/16/11 (NextFriday) at 11:15 AM  
The class takes about a  $\frac{1}{2}$  hour.

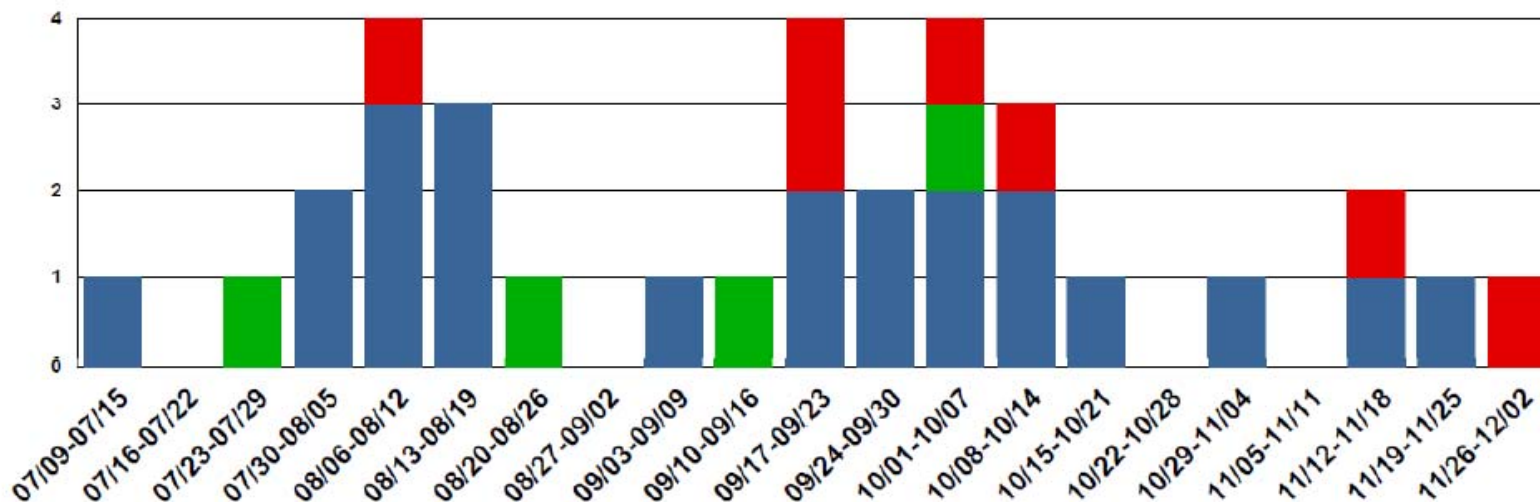
There will be additional classes scheduled in early January for those who can't make these 3 sessions.

- PHENIX annual safety review 11/22/11 Rob, Paul, Steve and Don to prepare as usual.
- Mods to WC platforms: gates and railings plan needed





## Injuries Per Week As of 12/2/2011



### Injury Status:

FY12 YTD: DART – 4, TRC – 5, First Aid – 8

FY11: DART – 27, TRC – 42, First Aid – 45

FY10: DART – 19, TRC – 33, First Aid – 52

### Recent Injuries

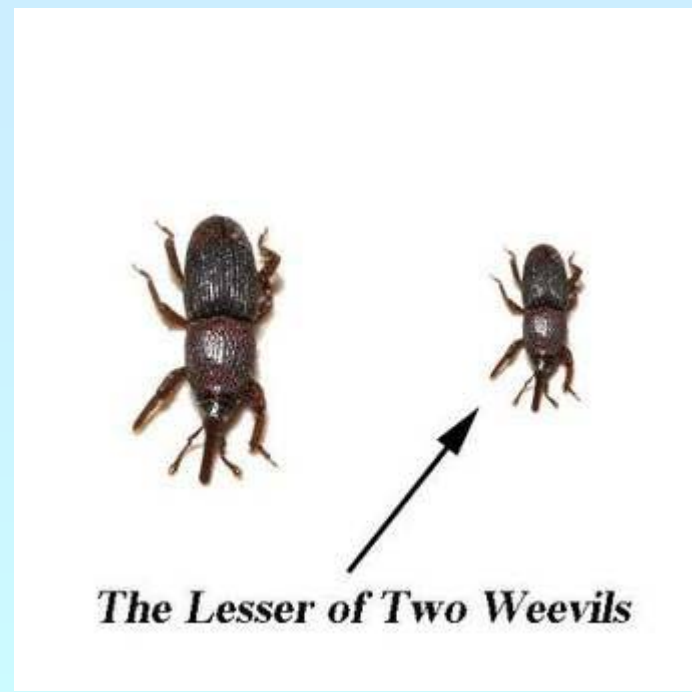
11/29/11	DART	A subcontractor fell approximately 16 feet off a scissor-lift in Bld. 701.
11/22/11	First Aid	An employee tripped and fell while climbing a staircase on the way into work. At the OMC, first aid was given.
11/21/11	Info Only	An employee tripped and fell into a glass door, damaging the door. The employee has no apparent injury. At the OMC, he was examined and returned to normal duties.
11/18/11	First Aid	An employee injured a knee while ascending a staircase. At the OMC, first aid was given.
11/16/11	DART	An employee experienced lower back pain while trying to open a door. After notifying their supervisor, the employee kept working. This is recordable and a DART case due to lost time.



Recent Events		
12/2/11	Non-reportable	An employee reporting to work at CFN Building 735 noticed a water leak from Room 1L-23 on the 1st floor upon approaching the room. A small fitting attached to a flowmeter at the room wall failed, allowing a water leak to begin sometime between ~1700 last night and this morning. Fire/Rescue responded to help with isolation of the water leak.
11/30/11	Non-reportable	At the ISB construction site, an unknown buried tank was found. It is filled with a liquid having a sweet organic smell. This is an old chemistry building site that was demolished in 1972. Further investigation is underway and this will be updated as more information is transmitted.
11/25/11	Non-reportable	A worker trying to fill a liquid nitrogen dewar outside building 820 noticed the valve was broken. Liquid nitrogen boil-off was released to the outside. The dewar was kept outside. Update 11/28/11: The valve on the storage buggy outside the building was frozen open. The buggy was emptied, and the valve was able to be closed when it warmed. Evaluation of the stuck valve is in progress.



# Where To Find PHENIX Engineering Info



Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)

